



National Center for Science and  
Engineering Statistics

## Survey

# The National Training, Education, and Workforce Survey (NTEWS) | 2022

The NTEWS provides data on the educational and training characteristics of the nation's workforce, with a focus on those in the skilled technical workforce.

## Survey Description

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### Survey Overview (2022 Survey Cycle)

#### Purpose

The National Training, Education, and Workforce Survey (NTEWS)—sponsored by the National Center for Science and Engineering Statistics (NCSES) within the National Science Foundation (NSF) and by the National Center for Education Statistics (NCES) within the Department of Education—will provide data on the educational and training characteristics of the nation’s workforce, with a focus on those in the [skilled technical workforce](#). The NTEWS will sample individuals who are living in the United States, ages 16 through 75, and not currently enrolled in high school. Data from this survey will provide information on the prevalence of work-related credentials (vocational certificates, occupational licenses, and industry-recognized certifications) and the relationship between these credentials and employment outcomes. This survey will expand other NCSES surveys of the college-educated workforce ([National Survey of Recent College Graduates](#), [National Survey of College Graduates](#), and [Survey of Doctorate Recipients](#)) by providing new data on the workforce who do not have a bachelor’s degree or higher.

#### Data collection authority

The information collected in the NTEWS will be solicited under the authority of the NSF Act of 1950, as amended; the America COMPETES Reauthorization Act of 2010; and the Education Sciences Reform Act of 2002. The Census Bureau collects the NTEWS data under the authority of Title 13, Section 8 of the United States Code. The Office of Management and Budget control number is 3145-0264.

#### Major changes to recent survey cycle

The administration of the 2022 NTEWS will be the first cycle of the survey, which will begin to address the federal government’s need for data on work-related credentials and the skilled technical workforce. Some content for the 2022 NTEWS will draw from NCES’s [2016 Adult Training and Education Survey \(ATES\)](#), NCSES’s [National Survey of College Graduates \(NSCG\)](#), and the Census Bureau’s [American Community Survey \(ACS\)](#).

### Key Survey Information

<b>Frequency</b>	Biennial.
<b>Initial survey year</b>	2022.
<b>Reference period</b>	Not applicable.
<b>Response unit</b>	Individuals ages 16 through 75 who are not currently enrolled in high school.
<b>Sample or census</b>	Sample.
<b>Population size</b>	Approximately 249.8 million individuals.
<b>Sample size</b>	Approximately 43,200 individuals.
<b>Key variables</b>	<ul style="list-style-type: none"> <li>• Employment status</li> </ul>

- Occupation
- Education background
- Field of degree for highest degree
- Credential type (certificate, license, and certification)
- Training or work experience
- Demographics (e.g., age, race, sex, ethnicity, citizenship, and disability status)

## Survey Design

### Target population

The NTEWS target population will include individuals who meet the following criteria at the start of data collection:

- Reside in the United States or Puerto Rico
- Not institutionalized
- Between the ages of 16 and 75 (inclusive)
- Not enrolled in high school at the time of their NTEWS interview

### Sampling frame

The NTEWS plans to use a rotating four-panel design that will draw its sample from the ACS 2 years prior. Please note that the 2022 NTEWS will draw its sample cases from the 2018 ACS, rather than the 2020 ACS, because of possible coverage errors resulting from the coronavirus pandemic.

### Sample design

The NTEWS will select its sample from the final sampling frame using a stratified systematic sample with probability proportional to size. Using this process, the probability of a person being selected into the sample varies with their measure of size. The stratification cells are defined by the following variables:

- Educational attainment
- Sex
- Underrepresented minority status
- Science, technology, engineering, and mathematics (STEM) workforce occupation status

## Data Collection and Processing

### Data collection

The NTEWS will use a trimodal data collection approach: Web survey, mail survey, and computer-assisted telephone interview (CATI). The 2022 NTEWS data collection effort will last approximately 6 months.

### Data processing

The data collected in the NTEWS will be subject to both editing and imputation procedures. The NTEWS will use both logical imputation and statistical (hot deck) imputation as part of the data processing effort.

## Estimation techniques

Every sample case in the NTEWS will have a final sample weight that reflects the portion of the overall population the case represents. This final sample weight reflects weighting adjustments conducted to account for the following:

- Sample selection
- Nonresponse
- Trimming procedures to eliminate extreme weights
- Raking procedures to ensure the sampling weights agree with sampling frame estimates
- Overlap procedures to convert weights that reflect the population of the frame (2018 ACS) into a final sample weight that reflects the 2022 NTEWS target population

The final sample weights will enable data users to derive survey-based estimates of the NTEWS target population.

## Survey Quality Measures

### Sampling error

Estimates of sampling errors associated with this survey will be calculated by using replicate weights. Please contact the NTEWS Survey Manager to obtain the replicate weights.

### Coverage error

Any missed housing units or missed individuals within sample households in the ACS would create undercoverage in the NTEWS. Additional undercoverage errors may exist because of self-reporting errors in the NTEWS sampling frame that led to incorrect classification of individuals, such as initially identifying respondents as being enrolled in high school when in fact they were not at the time of the NTEWS interview. The sampling frame will also have an undercoverage of immigrants during the year ACS data were collected because some persons immigrate to the United States after the month when they would have been sampled by ACS. The NTEWS will handle this undercoverage through a weighting adjustment. Immigrants who arrived in the United States after 2018 will not be covered by the NTEWS.

### Nonresponse error

Analyses of NTEWS nonresponse trends will be used to develop nonresponse weighting adjustments to minimize the potential for nonresponse bias in the NTEWS estimates. A hot deck imputation method will be used to compensate for item nonresponse.

### Measurement error

The NTEWS is subject to reporting errors from differences in interpretation of questions and by modality (Web, mail, or CATI). To reduce measurement errors, the NTEWS questionnaire items were pretested in cognitive interviews.

## Data Comparability

### Data availability

Data from the 2022 NTEWS will be made available to the public through the NTEWS Web page. The projected data release is in April 2024.

## Data comparability

The 2022 NTEWS data will have some comparability to NCES's 2016 ATES and NCSES's NSCG. The NTEWS will target the same ATES population (i.e., adults in the United States who are not enrolled in high school). The NTEWS will have overlapping populations with the NSCG because both survey collections use the ACS as their sampling frame. Also, many NTEWS survey questions will use similar survey questions that were used on the ATES or NSCG.

The administration of the 2022 NTEWS will be the first cycle of the survey. Some content for the 2022 NTEWS will draw from NCES's [2016 ATES](#), NCSES's [NSCG](#), and Census Bureau's [ACS](#).

## Data focus

The 2022 NTEWS will collect information on the educational and training characteristics of adults in the United States, with a focus on those in the [skilled technical workforce](#). The NTEWS will sample individuals who are living in the United States, ages 16 through 75, and not currently enrolled in high school. Data from this survey will provide information on the prevalence of work-related credentials (vocational certificates, occupational licenses, and industry-recognized certifications) and the relationship between these credentials and employment outcomes.

## Data Products

### Publications

Data from the NTEWS will be published in NCSES InfoBriefs and data tables. Information from this survey will also be included in future versions of the two Congressionally mandated reports produced by NCSES: *Science and Engineering Indicators* at <https://nces.nsf.gov/indicators/> and *Women, Minorities, and Persons with Disabilities in Science and Engineering* at <https://nces.nsf.gov/wmpd/>.

### Electronic access

The NTEWS public use data will be available as downloadable files through the NCSES data page (<https://www.nsf.gov/statistics/data.cfm>). The NTEWS restricted-use data will only be available through the Census Bureau's Federal Statistical Research Data Centers (<https://www.census.gov/fsrdc>).